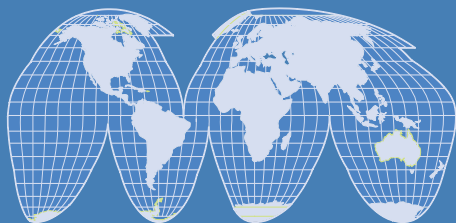


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Review of Assessment Activities

January/February 2006

In this Issue

Happy new year to our friends and colleagues in the INES project! This January/February 2006 newsletter includes a special feature on e-assessments in England, focusing specifically on the key stage 3 ICT test. This issue also provides a summary of the information provided by members on national-level programs that measure and monitor student performance.

The country highlight in this issue focuses on the education system and assessments in the Slovak Republic. The article gives an overview of the different levels of education and information on monitoring and examination programs. As usual, the newsletter also provides updates on Networks A, B, and C, and the PISA Governing Board. In addition, this issue includes an update on the work of the Technical Group, which we plan on making a regular feature in future newsletters.

We thank all those who contributed to the newsletter, especially Martin Ripley, from the Qualifications and Curriculum Authority, for contributing the article on England's ICT assessment; Vladislav Rosa, from the Central School Inspection, for preparing the article on the Slovak Republic's education system; Dan Andersson of Sweden for updating us on Network B; Jaap Scheerens and Maria Hendriks of the Netherlands for sharing information on Network C; and Michael Davidson of the OECD for providing an update on the Technical Group. We appreciate your efforts in keeping us informed of activities from around the INES Project. We hope you enjoy the latest newsletter!

E-assessment Goes Live in England

*Prepared by Martin Ripley
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Qualifications and Curriculum
Authority*

Introduction

In England in 2005, the Qualifications and Curriculum Authority (QCA) completed a national pilot of a new national on-screen test of information and communication technology (ICT) for Year 9 (14-year-old) students. These new tests have won major national public and media acclaim and are supported by ICT teachers, pupils, and assessment experts. The project, the key stage 3 (KS3) ICT test (described below), won the prestigious 2005 Computing Award for Innovative Project of the Year – the Computing Awards are the United Kingdom's leading and largest recognition of an organization's excellence in the field of ICT innovation. The project also has been short-listed for two UK e-Government awards in the categories of Strategy and Leadership and e-Government Excellence.

Work began on designing and building these new tests in 2001. Two years of feasibility studies were followed by a UK government decision in 2003 to initiate the innovative project and to start building the new tests. QCA's vision was to use technology to develop a twenty-first century approach to test design, administration, marking, and reporting. Early technical piloting in 2003 and 2004 was successful.

In England, the national curriculum is assessed at ages 7 (key stage 1), 11 (key stage 2), and 14 (key stage 3). In March 2005, Ministers announced that, subject to successful national pilots in 2006 and 2007, the KS3 ICT test would become statutory beginning in 2008, with results reported in achievement and attainment tables, alongside the existing key stage 3 test results in English, mathematics, and science.

In May 2005, over 400 schools took part in a national pilot, with over 45,000 pupils completing the pilot test and receiving results. This article summarizes the main findings from that pilot. It describes:

- the design of the test,
- the technical preparedness of schools to conduct an on-screen test, and
- pupil performance on the test.

Design of the test

The new test is conducted within a secure desktop environment created specifically for the purpose of the test. This desktop environment consists of a number of applications, including a word processor, email function, spreadsheet, and web browser. The environment is populated with a virtual world – Pepford – created specifically for the purposes of the test. Pepford is a simulated virtual town, represented through a range of websites.

The test operates by assigning tasks to students to complete within the virtual environment. The

tasks are simulations of the ways in which students, teachers, and the business world use ICT to solve problems, to communicate, to research, and to present information. For example, a student might be asked to design a spreadsheet for use by the box office of Pepford's cinema to keep track of tickets sold and seats available in the cinema. In another task, students were asked to investigate the ethnic diversity of employees in Pepford's police force and teaching profession.

The 2005 pilot test comprised two 50-minute test sessions. A pupil could take the two sessions at any time between April 25 and May 20, 2005. As with the other statutory key stage 3 tests, pupils working at the lower levels of the national curriculum 1 and 2 are not considered appropriate to be assessed in a timed test. Therefore, in 2005, the test assessed levels 3–6 of England's national curriculum and consisted of two tiers: levels 3–5 and levels 4–6.¹

Schools were free to schedule test sessions for students at any time within the four-week test window. The test was made available to schools over this period of time to ensure that large cohorts of students had access to computers. However, it was also necessary for QCA to maintain the security of the tests, ensuring that students taking the tests later in the four-week period were not able to obtain particular advantage over those students who had completed the test earlier.

For this reason, the test environment included a number of different test forms. These were allocated randomly to pupils. The tasks in each form were the same, but the context was different. For example, the first task for some pupils was to produce a leaflet for a hotel, while for others it was for a theme park. In addition to

¹ Levels are based on the National Curriculum for England attainment targets for each key stage. For more information, go to <http://www.nc.uk.net/>

using different test forms, the detailed information and the data associated with the task were also randomized.

QCA recognized that pupils would require time to become familiar with the test toolkit and environment. To help prepare students for the pilot, schools were provided with familiarization materials designed to allow pupils to experience the desktop environment and a practice test. These materials were sent to schools during the second half of the spring term.

Technical preparedness of schools to conduct an on-screen test

The KS3 ICT test represents a big cultural change for most schools. Staff in schools learn enormously from the experience of administering the on-screen test, and at this stage it is prudent to anticipate that all schools will need at least two years of experience before being fully ready for high stakes on-screen testing.

Schools taking part in the pilots are provided with support in the form of training guides, posters, on-screen tutorials, and online help. A website and dedicated customer service and technical support teams also were set up. Schools that had the best experiences were those that planned adequately and made use of the training materials. Often a team approach was taken, which gave staff more confidence so that they were better placed to handle any problems that arose. From the feedback received from schools, focus groups, and calls to the support teams, it was clear that many schools did not use the materials provided or follow the advice and instructions given. Sometimes this created problems or issues that could have been avoided. The lack of planning was also the reason for some accredited schools withdrawing from the pilot.

To become involved in the KS3 ICT pilot tests, schools need to go through an accreditation process to check their technical readiness. This is to ensure that the equipment in schools meets the minimum technical specification needed to

Praise for the test from teachers

The kids in general were very keen and excited about taking the test and it was a great improvement on last year. Students who weren't allocated to a test were actually asking if they could take part.

To see the students actually working through the problems and completing a test...was very satisfying. A lot had a very positive experience, which for many doesn't usually happen in an exam situation.

Praise for the test from students

It was fun when you got started. It was like a mission to finish the job before the time ran out.

It was like your own little workspace and you got used to the stories and felt you were completing the tasks for real people.

administer and to run the test. It also provides QCA with information about the equipment a school is using so that technical support can be provided effectively should the school encounter any issues while installing and running the test software. The technical audit stage of the accreditation process requires schools to complete a technical questionnaire and then to run a network audit tool on the server and workstations. This audit is conducted against a published minimum technical specification. The vast majority of schools comply with that specification, although QCA is introducing a “thin client” system to enable non-Windows schools to run the tests successfully. Currently less than 0.1 percent of schools fail technical accreditation.

The KS3 ICT test software is made up of three parts. The Central Point System (CPS) sits on a remote, centrally hosted server. Its main purpose is to send out tests to schools, to receive completed tests back from schools, and to return results. The Admin Point System (APS) software is installed on a network server at each school. The APS is used to manage and to administer tests. It also holds all the pupil and test data. The Delivery Point System (DPS) is the software that is installed on the workstations on which pupils take tests.

Schools found installing the test software considerably easier than in the 2004 technical pilot, and few encountered major problems. This was partly to do with clearer technical guidance and improved software and also because in 2005 the DPS software could be installed automatically onto workstations from the school’s server using Microsoft Installer.

Most schools and pupils completed test sessions successfully. However, a minority of schools encountered significant technical problems either on the server, workstations, or both. These are being investigated to identify any test software faults that need to be fixed. Some of the technical problems encountered were local, for ex-

ample, caused by network traffic or lack of available space on a server. These issues also are being investigated to determine the causes of the problems and whether there is any further guidance that QCA needs to provide to schools.

When schools become accredited to receive and to use the test software, they are asked to nominate named staff to carry out particular roles within the software. In 2005 the roles were:

- APS administrator,
- test administrator,
- invigilator, and
- teacher.

These roles give access to different functions within the software. The APS administrator role is a technical role, and most schools allocated this to the network manager or another member of the technical team. The test administrator role is about managing, scheduling, and allocating pupils to tests. In 2005, an ICT teacher or the ICT coordinator often carried out this role. The invigilator role involves using the Flight Deck to invigilate (or, proctor) the tests. This is a view within the APS software that allows the invigilator to run and to invigilate test sessions. ICT teachers often undertook the invigilator role, although in some schools, a technical person carried it out.

Student performance on the test

The KS3 ICT test is designed to assess pupils’ ICT capability as described in the program of study in the national curriculum orders for ICT. ICT capability involves accessing, using, developing, creating, and communicating information appropriately using ICT tools. Pupils demonstrate ICT capability by applying technology purposefully to solve problems, to analyze and exchange information, to develop ideas, to create models, and to control devices.

The test is marked by computer. It assesses pupils by using a process that is similar to the approach a teacher would use to assess pupils, i.e. by making use of a variety of evidences to make a judgment about the level achieved against the national curriculum level descriptions. Each time a pupil undertakes a task, the software captures evidence of their ICT capability. For example, a piece of evidence might be that a pupil used an efficiency tool such as Goal Seek in a spreadsheet to find the values necessary to make a £500 profit. One piece of evidence on its own offers a small amount of information about the pupil's ICT capability but is certainly not conclusive evidence that a pupil is operating at a particular level. At the end of the test, all the pieces of evidence that a pupil has demonstrated in the test are taken into account and a judgment can be made about whether the pupil has exhibited enough evidence to be awarded a particular level. Pupils may, therefore, show different profiles of evidence but be awarded the same level.

The KS3 ICT test is breaking new ground in assessment and redesigning the way testing happens in schools. The test is computer-marked, but while it is still in pilot phase QCA is undertaking human moderation as a check on the accuracy of the marking. In 2005, a group of teachers was brought together to moderate the evidence generated by a sample of pupils. These teachers were asked to review the tests and to tell us which level they considered each pupil should be awarded. This moderation worked extremely well. There was strong agreement on which levels these pupils were working, and this gave QCA confidence that the standards of the test accurately reflect standards in classroom teaching. The teachers' judgments informed QCA's subsequent level setting. QCA and assessment experts had no difficulty in setting level

thresholds based on the evidence generated by pupils. As well as statistical evidence, reports showing individual pupil actions also were analyzed.

The 2005 results are lower than nationally reported teacher assessments for pupils. At this stage in the piloting of a new and innovative ICT test, this is to be expected. Some of the reasons for these differences are accounted for by the following:

- Practice and familiarization materials were released late, which gave little time for pupils to be prepared and limited time for pupils to develop an understanding of how the test works and to acquire test techniques.
- Some pupils had an incomplete knowledge of England's program of study.
- Some pupils were entered for the higher tier but probably would have performed better on the lower tier.
- Some pupils experienced technical issues during their test sessions.

Next steps

In view of the complexity of the new test system, QCA is strongly advising schools in England to prepare for 2008 by taking part in the 2006 and 2007 pilots. Involving themselves in these two rounds of testing will provide the experience and confidence in schools to run the tests on a high stakes basis beginning in 2008.

For more information on the program, go to the KS3 ICT test website (www.ks3ictpilot.com) or email enquiries to ks3ict@qca.org.uk.

Network A

Network A last met in Reykjavik, Iceland on October 6-7, 2005. Topics discussed at this meeting focused on the areas of work conducted by the three working groups: the indicators for *Education at a Glance* (EAG) 2006, Network A's work in the area of adult competencies, and the collection of data on national activities.

The Analysis, Reporting, and Dissemination working group presented three proposed indicators for EAG 2006, which explore the PISA 2003 data: a profile of low achievers (students at performance level one and below level one) in the mathematical literacy assessment, an analysis of institutional characteristics and their relationship with students' performance in mathematics, and students' attitudes and behaviors related to learning. Members will review drafts of these indicators at their next meeting.

The next topic of discussion centered on new areas of development for the Network. While there are many areas that may be explored over the coming years, the primary focus at the moment is on the possibility of assisting the OECD Secretariat with the development of an assessment of adult competencies (PIAAC). Although the draft strategy paper – to which members crafted a first proposal for assistance – has evolved somewhat since the plenary meeting, the Network is working with the OECD Secretariat to develop a revised proposal that will focus on developing a conceptual framework for the assessment of “literacy in the information age,” which is to be the first focus of PIAAC.

The Data working group presented results from the survey on national activities, which had been distributed to members in September 2005. The follow-up discussion focused on the possibility of including data on regional-level programs,

different interpretations of terminology, and public accessibility to the data. Taking members' input into consideration, the questionnaire was revised, and a second round of data collection is currently underway. A brief summary of preliminary results is presented in this newsletter (see page 15), and full results will be presented at the next Network meeting.

The meeting concluded with presentations by two guests on studies related to teaching and learning. Mary McLaughlin from the Education Statistics Services Institute gave a presentation on a U.S. study of instructional processes and student content engagement, and Tina Seidel from the University of Kiel presented on a video study of science classrooms in Germany.

The next Network A meeting will be in Seoul, Korea on March 9-10, 2006, following the PISA Governing Board meeting on March 6-8.

Network B

Network B recently held a planning meeting in Washington, D.C. to plan for their next plenary session and to discuss progress and next steps on the various developmental activities underway, including: Social Outcomes of Learning (SOL), Monitoring Transition Systems (MTS), Supply of Skills on the Labor Market (SoS), Economic Outcomes of Education, and Continuing Education and Training (CET). The planning group decided to explore member countries' resources and the costs of the Network's activities in order to help set priorities and plan future work and timelines. The planning group attended the Technical Group meeting, which also was occurring in Washington, for a discussion on the overlap of work between the two groups in the area of adult learning, which helped to clarify the conceptual differences and work distribution between the two groups.

The twenty-fifth plenary meeting of Network B will be held on March 8-10, 2006, in Washington, D.C., and will be hosted by the National Center for Education Statistics (NCES) of the U.S. Department of Education. The main objectives of the March meeting will be to evaluate the progress of the Network's five working groups, to discuss and to decide on further development work and data collections for EAG 2007 and 2008, and to decide how to streamline the work of the Network. The future work of Network B is expected to be affected by a number of factors, including a renewed OECD structure, a cyclical publication of EAG, new INES Strategic Objectives for 2007-2008, and the interplay among the comprehensive INES projects (e.g. the Program for the International Assessment of Adult Competencies [PIAAC] and other OECD activities related to Network B).

Network C

Network C last met in Montreux, Switzerland, on November 30 and December 1-2, 2005. The key topics discussed at this meeting were: the indicators for EAG 2006; the development of new system-level indicators; exploration of an Index on Teacher Working Conditions; the survey on teachers, teaching, and learning; and the comparative teaching/learning effectiveness study.

For EAG 2006, Network C will update its three core indicators on teachers' working and teaching time, instructional time, and teacher salaries. In 2006, the indicator on teacher salaries will show data in Euros as well as US dollars, and the Network will explore with the OECD Secretariat the possibility of presenting comparative information on other national earnings data. Also, the proposal for an index on teachers' working conditions was discussed again. The Network decided not to proceed with a numerical integration of data on working conditions in an index. Instead, the various factors will be presented side-by-side. A next step will be the determina-

tion of decisive factors for teachers' working conditions across OECD countries. Therefore, a limited literature review will be carried out, and a priority-rating questionnaire will be developed and sent out to Network members.

The Network also has been working on possible new system-level indicators, and at this meeting discussed further proposals for policy-related indicators on evaluation and accountability, equity, integration versus segregation in lower secondary schools, and administration costs:

- *Evaluation/accountability:* The Network is reviewing descriptive information on evaluation practices gathered from Network members, as well as similar recent reports from Eurydice and the World Bank. In addition to these descriptive data, the Network also will collect data on the size/magnitude of the evaluation activities and the part of the budget spent on evaluation.
- *Equity:* Drawing on a paper from Portugal and two recently finalized European studies in this area, the Network resolved first to collect information on active policies that countries develop to improve equity in education. This inventory will be intended to empirically verify whether equity policies across countries vary sufficiently, which will inform whether or not the Network decides to collect more quantitative information.
- *Integration/segregation of lower secondary schools:* The Network decided to terminate further development because of lack of data. A roundtable at the meeting showed that system-level data on transitions from one school type are available for the majority of countries with a categorical system. On the contrary, in countries with comprehensive systems, decisions about streaming usually are made at the school level, and statistics are not available.

- *Administration costs:* The Network discussed a proposal prepared by the U.S. representative reviewing the finance data provided through the Technical Group. The Network endorsed the work but emphasized that contact should be sought with the Technical Group to explore the possibilities for further development or cooperation. The Network C Secretariat will write a conceptual paper to indicate Network C's interest in this area as well as the conceptual and methodological issues to be tackled.

With regard to the international survey on teachers, teaching, and learning, Network members welcomed the initiatives of the European Commission to assist countries participating in the survey, as long as the survey meets the European Union's requirements for coverage of member states and for data in the field of teachers' professional development. The Network also discussed the management and governance of the survey. The survey will be managed by the group of participating countries that will report to the Joint Session of the OECD Committee and CERI Governing Board. Concerning the complementary role of Network C, members agreed that after the items of the survey had been established (expected in mid-2006), further analysis would be made of their applicability to indicator development in the Network.

Finally, Network C discussed the activities on the Long-term Strategy on Teaching and Learning,

which was discussed in a joint committee meeting of Network A and C members and five external experts in the field of learning and instruction and assessment in October 2005. Future activities discussed included an analysis of conceptual models on teaching/learning/student outcomes, a review of the research literature on teaching effectiveness and teaching and learning strategies, an inventory of available instruments, and the design of an internationally comparative pilot study in a limited number of countries.

The next meeting of the INES Network C will be in Norway (Oslo or Stavanger) on May 29-31, 2006.

PISA Governing Board

The PISA Governing Board (PGB) last met on October 3-5, 2005, in Reykjavik, Iceland. The main topics of discussion were the PISA 2006 assessment instruments and context questionnaires, the computer-based science assessment, PISA 2003 thematic reports, and a longer-term strategy for PISA.

The meeting opened with updates and discussions on issues for the PISA 2006 assessment. Presentations focused on the results of the field trial science assessment; proposals for the content and design of the main study assessment; analyses of the student, school, and parent questionnaires; and the framework and potential

thematic areas for analysis and reporting. Among

Upcoming Meetings

March 6-8, 2006
PISA Governing Board (Korea)

March 8-10, 2006
Network B (United States)

March 9-10, 2006
Network A (Korea)

May 29-31, 2006
Network C (Norway)

June 6-9, 2006
Technical Group (France)

other topics, the PGB discussed the possibility of including attitudinal items in the science assessment. Members decided to select through written consultation which of the three proposed attitudinal scales (interest in science, support for scientific enquiry, and responsibility for sustainable development) would be integrated into the main study, with the remaining two covered in the background questionnaire. The purpose of these items would be to give greater coverage to the conceptual framework, which considers students' attitudes toward science as an important aspect of science learning itself. Additionally, the PGB endorsed the framework for analysis and reporting as well as the proposed priorities for the questionnaires, although preferring that higher priority be given to those outcomes that the field trial demonstrated as showing more potential for analysis (such as the relationship between science achievement and the labor market and student engagement with science).

Also related to the current cycle of PISA, members reviewed the progress of the development of the computer-based science assessment. In addition to a stand-alone assessment, plans are underway to potentially implement a web-based assessment as part of the PISA 2006 main study and to involve additional countries in that component. The PGB approved these plans, with cautions about the implementation phase and ensuring comparability of data.

The Editorial Group also updated members on the development of a number of thematic reports from the PISA 2003 cycle, including reports on student performance and international migration, student performance and engagement in mathematics, and student access to and use of computers. Additionally, the PGB decided to establish a password-protected website to organize abstracts and references to PISA-related research. The website will be facilitated by the Secretariat with bi-yearly submissions from member countries and will be made

available to the public at a later date.

The meeting then shifted to the topic of the longer-term strategic development of PISA. The PGB adopted the long-term strategy developed by the Strategic Development Group and discussed the need for development work in a number of areas. Suggestions included possibly coordinating with other international assessments, increasing the relevance of PISA to schools and teachers, and introducing new themes (such as student disaffection with learning and increasing participation beyond the compulsory school age).

The meeting concluded with the PGB's adoption of the terms of reference for the PISA 2009 assessment and the program of work and budget for 2006.

The next PISA Governing Board meeting will take place in Korea on March 6-8, 2006.

Technical Group

The INES Technical Group met twice during 2005, first on June 8-10 in Bratislava, Slovak Republic and then on November 14-16 in Washington, D.C. (As many of our readers know, the Technical Group is the group within INES that prepares indicators related to administrative aspects of education, including enrollment, attainment, and human and financial resources. The OECD Secretariat leads this group.) Topics of discussion at these two meetings included indicators for EAG 2006, reviewing the mappings of national education systems to the ISCED levels, and a draft program of work for the future. At the meetings, members agreed upon the proposals for new indicator tables, data, and methodology development.

A number of EAG indicators were discussed at the two meetings. First, regarding the indicators on educational expenditures, the Technical

Group plans to include in EAG 2006 two new tables and a chart that will provide information not presented in previous editions. The tables will highlight the expenditure on core services for students (disaggregating expenditures for ancillary services and research and development) and the cumulative expenditure per student over the theoretical duration of study from primary to upper secondary education. The chart will show the effects of demography on expenditure as a percentage of GDP.

Second, for the regular indicators on student mobility, members discussed the possibility of moving the basis of measurement from country of citizenship to country of residence. The development of an indicator based on this new measurement depends on data availability, which will be reviewed by the Secretariat and will be implemented in EAG 2006 if possible.

Third, members discussed work related to the indicators on financial aid to students. The chapter in EAG 2006 focusing on these indicators will include contextual notes regarding average tuitions fees charged by institutions and types of subsidies available. In addition, the Technical Group plans to launch a quick survey to evaluate national-level data availability for possible new ad-hoc data collection tables on student financial aid. Survey results will be presented at the next meeting.

Fourth, regarding indicators on continuing and adult education, the Technical Group and Network B reached an agreement on the distinctive roles that each group's data can play in measuring continuing education and training (CET) and adult education. Support was expressed for Technical Group indicators based on the UIS/OECD/Eurostat (UOE) data collection that will focus on programs specifically designed for adults. Provided that these programs are reported consistently across countries, the indi-

cators would provide more comparable enrollment rates in formal education. The Secretariat will review with countries the prospect of such an indicator for EAG 2006.

In addition to discussions on EAG indicators, the meetings also touched on several other topics. Regarding ISCED mappings, countries will complete a template that monitors changes in the allocations of national programs to ISCED over time. Results will be discussed at the next Technical Group meeting and will be published electronically at same time as the release of EAG 2006. The results will provide valuable meta-data for the interpretation of EAG data over time.

Members made several decisions relating to development efforts on pre-primary education and work-based learning programs. First, in the area of pre-primary education, members agreed upon a number of clarifications for guidance in the reporting of data on students, personnel, and finance. These changes will be implemented in the 2006 UOE data collection. Second, the Technical Group plans to launch a quick study on the reporting of work-based learning programs, with the aim of seeking better data comparability. Taking the lead on this project, the United Kingdom will issue the questionnaire and will coordinate collection of results.

Finally, members drafted a three-year program of work for the Technical Group, with the aim of providing greater strategy and structure to its work. A small panel of Technical Group members has been established to review the proposed objectives and to propose a finalized program of work for discussion at the next meeting. The draft plan also will be sent to the INES National Coordinators and the Network Chairs for comment.

The next Technical Group meeting will take place on June 6-9, 2006, in Paris, France.

Country Highlight: Educational System in the Slovak Republic

*Prepared by Vladislav Rosa
Advisor to the Minister of Education,
former Major School Inspector*

Introduction

The revolutionary political, societal, and economic changes that took place in our society after November 1989 have logically resulted in fundamental legal, organizational, and, in particular, ideological and pedagogical changes in the field of education and in its management. This kind of transformation also has brought about changes in respective education acts and related binding regulations as well as the creation of new legal standards, taking into consideration the current international documents and recommendations in the field of education. The principles of democratization and humanization stipulated in the amendment No. 171/1990 of the Law Code on the system of primary and secondary schools, as amended by subsequent provisions, created suitable starting points for the differentiation and decentralization of our educational system, including the new content of education that corresponds to the needs of the twenty-first century.

On December 14, 2000, the Slovak Republic became a member of the Organisation for Economic Cooperation and Development (OECD); since March 29, 2004, it has been a member of the North Atlantic Alliance (NATO); and since May 1, 2004, it has been a member of the European Union.

Among the fundamental principles of educational policy in Slovakia the following principles rank:

- democratization,

- decentralization,
- humanism (manifested in respect for the pupil's personality and based on mutual confidence),
- alternatives in education programs and schools,
- autonomy for teachers and schools,
- transferability for pupils,
- comparability with other European education systems, and
- flexibility in syllabi in response to labor market requirements.

Structure of the Current Education System

Preschool education

In the Slovak Republic, preschool education (International Standard Classification of Education [ISCED] 0) includes a child's education until the beginning of compulsory school attendance, generally between the ages of three and six. The aim of preschool education is to support the following: the development of children's personalities in social, emotional, intellectual, physical, and moral areas; the development of knowledge and skills; the creation of prerequisites for education; and preparation for life in society, in accordance with children's ages and individual characteristics.

Primary and lower secondary education

Education in the Slovak Republic is compulsory for ten years, from the age of six, after preschool, to 16. Primary and lower secondary education in the Slovak Republic are carried out in primary (and secondary; see next section) schools. Primary schools usually consist of nine grades, with

the possibility of establishing a grade zero, and are generally divided into two stages: primary education (ISCED 1) in grades one to four and lower secondary education (ISCED 2) in grades five to nine. In some localities, primary schools consist of only grades one through four, and in some cases, students from multiple grades are grouped together. The students' in these localities then complete the lower secondary level of education in the next nearest community with a fully organized primary school, with their travel costs covered by the state.

The aim of primary education is full mastery of the beginning level of systematic education in the fields of reading, writing, and arithmetic, along with a basic comprehension of other subjects that are a prerequisite for successfully mastering lower secondary education requirements. The aim of lower secondary education is mastering the education program in language, science, humanities, art, and sports, which is a prerequisite for successfully mastering the educational program at the secondary level.

Secondary education

General secondary education and secondary vocational/technical education instruction is delivered in secondary schools, which consist of gymnasias, secondary vocational schools, and secondary technical schools. Gymnasias (ISCED 3A) are comprehensive schools that focus on preparing students for studies at higher education institutions. This high-quality preparation concentrates on the obligatory subjects. Along with a broad spectrum of optional and elective subjects, gymnasias provide students with the ability to develop the skills and expertise needed for occupations that require vision and intellect. Gymnasias have at least four grades, and at most have eight (meaning that students transfer at grade 5, after completion of the primary level of education). Gymnasias may have a particular curricular focus, and there also are bilingual (includ-

ing Slovak and English, French, German and Italian) gymnasias.

Secondary vocational schools (ISCED 3C) prepare students to assume worker's trades and vocational activities corresponding to the appropriate trade. The study is completed by a final examination. Secondary technical school (ISCED 3A) prepares students to undertake specialized activities in technical, economic, pedagogical, health, social/legal, administrative, artistic, and cultural areas. It also prepares students to study at higher education institutions. Study at secondary technical schools usually takes four years.

Another type of secondary school, apprentice school (ISCED 2C), provides vocational training for several different types of students: those who reached the age of 16, the end of compulsory school attendance, before completing grade nine; those who did not successfully complete ninth grade; and those who did not complete primary school after nine years of study. The course of study in apprentice schools is completed by successfully passing the final exam.

Other features of the education system

There are several other features to point out about the Slovak education system:

- *Non-state education:* In addition to state-run schools, there are non-state schools, as well, which comprise 7 percent of the total number of schools. These may be private or church-run schools. Related, the teaching of religious education (or ethics) is permitted in both state and non-state schools.
- *IT availability:* Every school has at least six computers connected to the Internet, a third of which are through DSL. The student to computer ratio

is 16 in secondary and 44 in primary schools.

- *Education of national minorities:* The school system in the Slovak Republic is uniform. Thus, the schools for national minorities are regulated by the same rules and educational documents as the schools that have Slovak as the teaching language, and the system of schools for minorities is identical to the system and organization of Slovak schools.

Funding of primary and secondary education

In compliance with the public administration reform that began in 2002, educational operations are being decentralized from the regional system to municipalities and self-governing regions. A new act on the funding of primary schools, secondary schools, and school facilities lays down standard funding per pupil. The total financial resources allocated to the school depend on the number of pupils. An administrator therefore is motivated to use the allocated financial resources more efficiently. Schools also are more motivated to provide higher quality education, as an increased interest in the school and a higher number of pupils will result in increased financial resources from the state budget.

Since 2004, state schools (schools founded and operated by regional self-governments and regional school authorities) and non-state schools (church schools and private schools) are funded on an equal basis. The state funds the education of pupils and therefore supplies financial resources for students regardless of the type of school they attend. Supplying financial resources to non-state schools on the same principle as state schools means free choice of educational institutions without discriminating

against the parent, who also is the taxpayer.

Evaluation, Assessment, and Measurement

In Slovakia, changes in the social and political conditions, organization, and content of its education system are closely connected with the intense growth of interest in developing an impartial, reliable, and systematic measurement and evaluation of how the school system is functioning, both as a whole and as individual constituents. Thus, the evaluation of education becomes a significant area of educational research and social/political practice. The main purposes of the system of evaluation are: to evaluate quality based on efficiency; to provide assistance in decision-making on questions related to education; to monitor not only the curriculum, but also the control over teaching and learning; to support the formative aspects of the teaching process; and to record both strengths and weakness in pupils' development and trends in student achievement at the class, school, and system level.

According to Act No. 596/2003 of the Law Code on state administration and self-government in education, schools of all types and levels, as well as educational establishments carrying out educational activities, have a statutory duty to conduct annual evaluations mainly in the following areas:

- various aspects of the teaching process, including instruction, organization, materials, and technical support
- educational activities of the school/educational establishment, including student achievement results
- finances and management of the school/educational establishment

Monitoring is informed by several different activities, described below.

School inspections

Following Act No. 301/1999 of the Law Code, as amended; the evaluation at the national level is carried out through the State School Inspection. This law requires the Major School Inspector to submit to the Minister of Education each year a “Report on the situation in education and training at schools and school facilities in the Slovak Republic for the respective school year based on inspection findings and other findings.” This report provides an in-depth evaluation of the national education system in the areas of management, conditions, and the quality of instruction and student achievement, according to kinds, types, and levels of education.

Student examinations

In order to gradually limit admissions exams to secondary schools and higher education institutions, subsequently decreasing the selectivity of the education system, the Slovak Republic introduced a nationwide monitoring program for students who complete grade nine in primary school and want to continue in gymnasias. Applicants’ knowledge in the subjects of the Slovak language and mathematics is evaluated in the form of a test. Every pupil receives a report on

their results, and schools also receive a report of their pupils’ results. The tests are developed externally and centrally; administration and evaluation at the schools are monitored by school inspections. The 2005-2006 school year is the first year the program is in place for all grade nine students.

Preparations began in 2001 for changes in the school-leaving exam administered upon completion of secondary study. The external part of the exam was introduced in the form of a written test for specific subjects. The tests are prepared by the National Institute for Education, with administration and testing checked by the school inspections. Evaluation of test results also is conducted externally. In some subjects, pupils may choose from different tests that assess two varying levels of knowledge. The new secondary school-leaving examination was officially introduced in the 2004-2005 school year.

International assessments

In addition to national evaluations, the Slovak Republic also took part in two international measurements of students’ performance, the Trends in International Mathematics and Science Study (TIMSS) and the Program for International Student Assessment (PISA). More detailed results will be available in 2005-2006.

Assessment, Testing, and Examinations in OECD Countries – A Snapshot

Introduction

Nearly all OECD countries conduct national-level activities to monitor student performance. In order to document the broad and increasing range of activities underway, Network A initiated a survey of OECD countries about their programs to measure student performance. The survey was developed with the input of a subgroup of Network members, led by the representative from Luxembourg, and was distributed to member countries in the latter half of 2005. The data presented in this article are based on responses from 21 countries (Australia, Austria, Canada, the Czech Republic, Denmark, Finland, Hungary, Iceland, Ireland, Japan, Korea, Luxembourg, Mexico, the Netherlands, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States).¹ The article provides an overview of the activities reported by countries (see figures 1 and 2), with summaries of each type of program including when they were established (see figure 3), which subjects and grades are assessed (see figure 4 and 5), and how frequently testing occurs. It also includes an overview on the prevalence of other assessment-related activities, such as subnational programs, item banks, and program areas currently under development.

National programs that monitor student performance can generally be categorized under three headings – assessment, testing, and examination – distinguished from each other in terms of program goals, whether the program focuses on a sample of students or a comprehensive group of students, and at what level results are reported.

The overall purpose of *national assessment programs*, for example, is to assess students' performance (frequently against national curricula and/or goals) and to monitor and subsequently enhance the quality of the educational system at the national level. Assessment programs generally are administered to a national sample of students and focus on monitoring student achievement in the aggregate, rather than producing individual student scores.

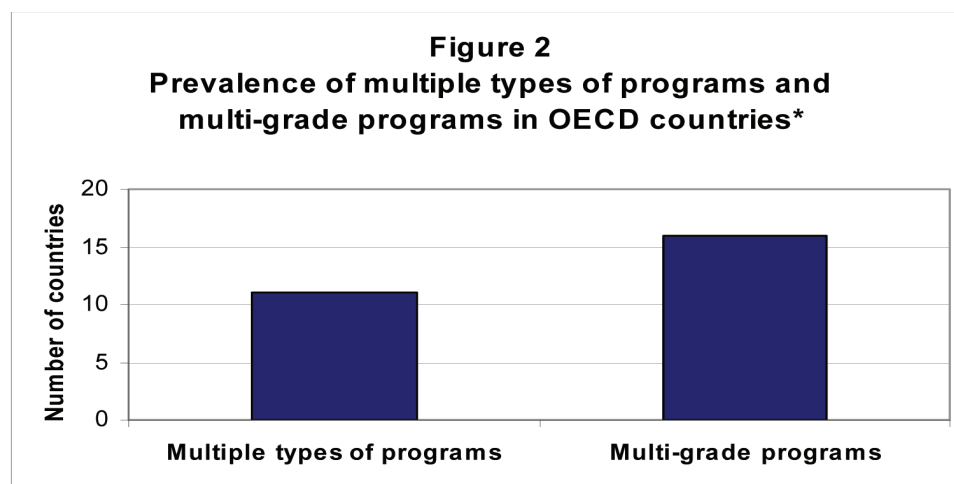
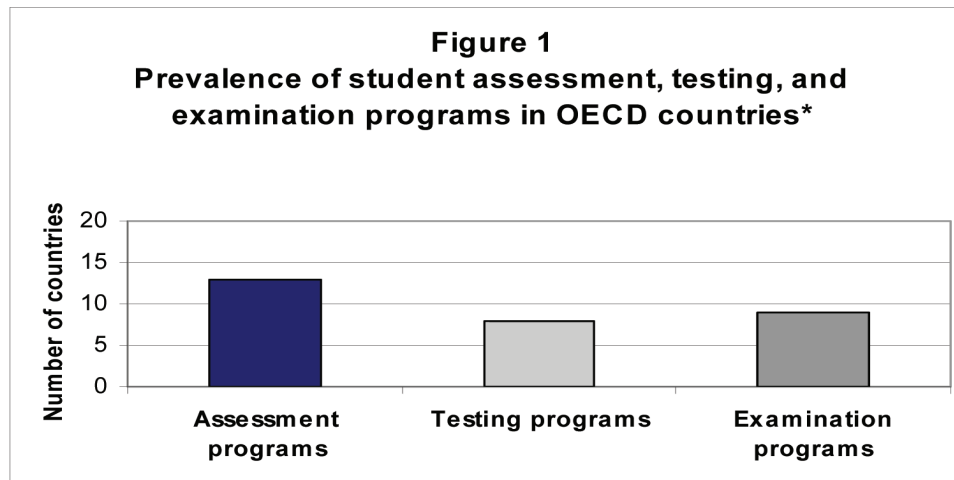
In contrast, student *testing programs* usually seek to provide information at the school or student level, not just in the aggregate, and most programs test all students in the target grades. The main goal of testing programs is to assess individual student achievement in order to provide information on students to their schools, teachers, and/or parents.

Last, *national examination programs* aim to measure individual student achievement for high-stakes purposes, such as certification of completion or advancement to the next grade or level of education or to a particular occupation. Examination programs in the countries responding to the survey commonly assess students at the end of upper secondary education and usually are not sample-based, though not all students in the target grades take all examinations. Most programs require either all students or only the select students seeking the next level of education or occupation to take the exam.

Overview of national assessment programs

The majority of countries (13 of 21) that responded to the survey currently administer national assessments (see figure 1). Most programs

¹This list includes only those countries for which we had received a response by the time of preparation of the article.



*Data based on responses from 21 countries and includes only countries with currently existing programs

were developed within the last 10 to 20 years, with only a few exceptions (see figure 3). The two oldest programs are the National Assessment of Education Progress (NAEP) in the **United States**, which was established in 1969, and the National Assessment Program (at the primary level), which started in 1972 in **Ireland**. Of the eight responding countries that do not have assessment programs, two countries indicated that plans are underway to develop these types of programs. **Austria**, for example, plans to begin a program focused on benchmarking students' performance against national education standards (*Bildungsstandards*) in 2008, and Denmark plans to begin a formative evalu-

ation in 2007 to help improve student progress and teacher planning. (Still a few others administer programs that focus more on individual students' results, and these are described in the next section.)

Assessment programs focus most often on the lower grades, in either primary or lower secondary school, with only a few programs assessing students at the upper secondary level (see figure 5). Although a number of programs include national assessments in tenth grade, the lowest grade at the upper secondary level, only NAEP in the **United States** currently administers assessments in twelfth grade, at the end of

upper secondary. This may in part be related to the use, in many countries, of examination programs that certify students' performance at the upper grades.

The frequency of administration cycles ranges from every year (National Assessment of Basic Competencies [*Országos Kompetenciamérés*] in **Hungary**) to every five to six years in **Ireland's** NAP.

Nearly every program (14 out of 15 programs²) assesses the two core subjects of mathematics and reading/writing in the national language(s) (see figure 4). The only exception is the National Assessment Program in **Australia**, which assesses science literacy, civics and citizenship, and information and communications technology (ICT).³

In terms of the format of assessments in OECD countries, for the most part, they are paper-and-pencil, with many using a combination of mul-

tle-choice and constructed response items. A few countries described programs that also included a hands-on performance task (**Australia, Canada, Sweden, and the United States**) or essay (**Canada and Finland**) component.

Overview of national testing programs

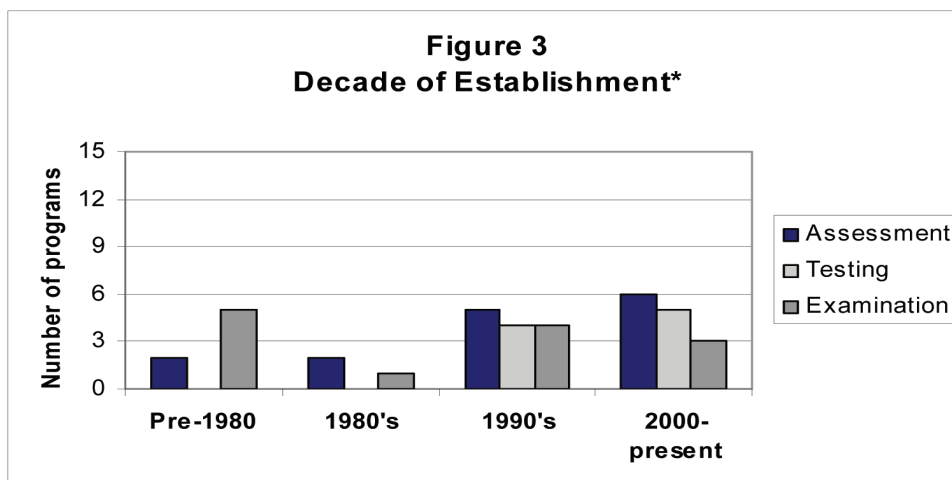
Of the 21 countries responding to the survey, eight have national testing programs (see figure 1). Four of these countries currently also administer assessment programs (as described in the previous section), with a fifth (**Austria**) in the process of developing such a program. Thus, it appears that testing in OECD countries is used as both an alternative and a supplement to national assessment, with an equal number of countries using it for each purpose.

Similar to assessments, the testing programs in their current form are fairly new, with all established in the past 15 years (see figure 3). Every program assesses mathematics and reading/writing in the national language(s), with about half of the programs testing only these two subjects. Four countries reported programs that test

²The Netherlands and Spain each reported two national assessment programs.

³Core subjects in Australia are assessed at the sub national level.

Figure 3
Decade of Establishment*



*Does not include programs still under development

additional subjects, such as science in the **United Kingdom's** Key Stage Tests and study skills in the CITO-eindexamentoets administered by the **Netherlands** (see figure 4).

All the testing programs reported in the survey focus on students in the primary and lower secondary levels, with about half of the programs testing just one grade level and the other half testing students in two to three different grades at various times during primary and lower secondary education (see figure 5). All reported programs test students every year, with most using a paper-and-pencil format with multiple-choice, constructed response, and essay items. **Sweden's** National Testing Program and the Key Stage Tests in the **United Kingdom** also include oral components.

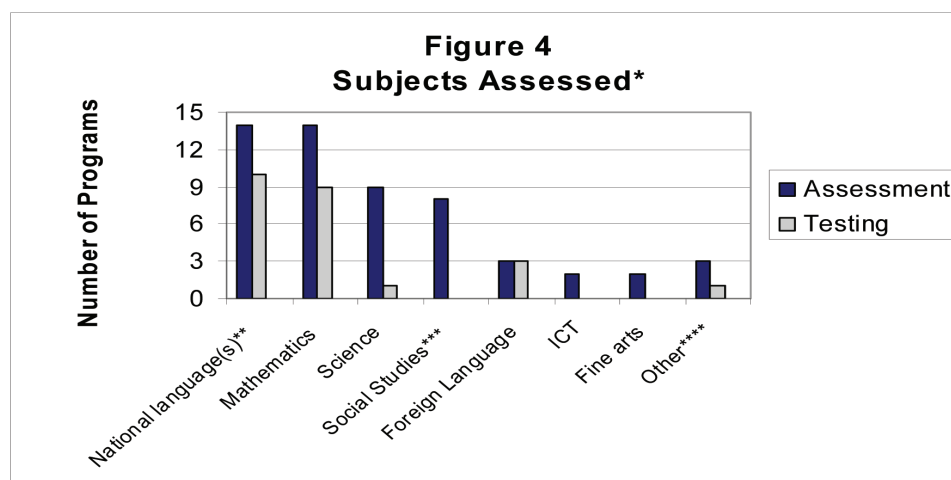
Overview of national examination programs

Nine of the 21 countries responding to the survey reported that they currently have national examination programs (see figure 1), and a total of 14 programs are in practice in these countries. Unlike the assessment and testing programs, examination programs vary widely in when they were established (see figure 3). The National Matriculation Program in **Finland** and the Central National Examinations in the **Netherlands** are both over 100 years old. Conversely, the **Slovak Republic's** School Leaving Exam (*Maturita*) was just established in 2004, and the **Czech Republic's** Upper Secondary School Leaving Examination (*Maturita*) is still in the developmental stages, with full implementation expected in the 2007-2008 school year.

Examination programs cover a wider range of subjects than assessment and testing programs, a facet that is likely related to the certification purposes of examination systems. At least 10 of the 14 programs reported cover at least the two

basic subjects, mathematics and reading/writing in the national language(s). Five of these programs also cover other traditional subjects, such as science, social studies, or foreign languages. Additionally, several programs also offer exams in some non-traditional areas. **Ireland's** State Certificate Examinations at the upper secondary level, for example, offer tests in agriculture/horticulture and catering and tourism, among others, as optional subjects that students may select from. In addition to Ireland, three other countries reported that they offer students options as to which subjects they would like to write exams. An example is **Finland's** National Matriculation Program, which requires students to take a Finnish exam and to choose a second exam in a second national language, a foreign language, mathematics, or humanities and natural sciences. Another example is the **United Kingdom's** General Certificate of Secondary Education (GCSE), which has no subject requirements, and students choose, on average, seven different subjects.

Most examinations are administered in the last years of upper secondary education, with a few exceptions (see figure 5). This is because most examination programs are given for the purpose of certifying students' exit from secondary school and/or entry to the next level of education. A few of the exceptions include: the diagnosis tool for admission to lower secondary schools (*Instrumento de Diagnóstico para Alumnos de Nuevo Ingreso a la Secundaria* [IDANIS]) in **Mexico**, which is for seventh-grade students, and **Iceland** and **Ireland**, which both have examination programs at the lower as well as the upper secondary level. The majority of examinations are paper-and-pencil format and use multiple-choice and constructed response items, though several countries (the **Czech Republic**, **Ireland**, and the **United Kingdom**) reported that the format varies depending on the subject and may include oral or computer-based components.



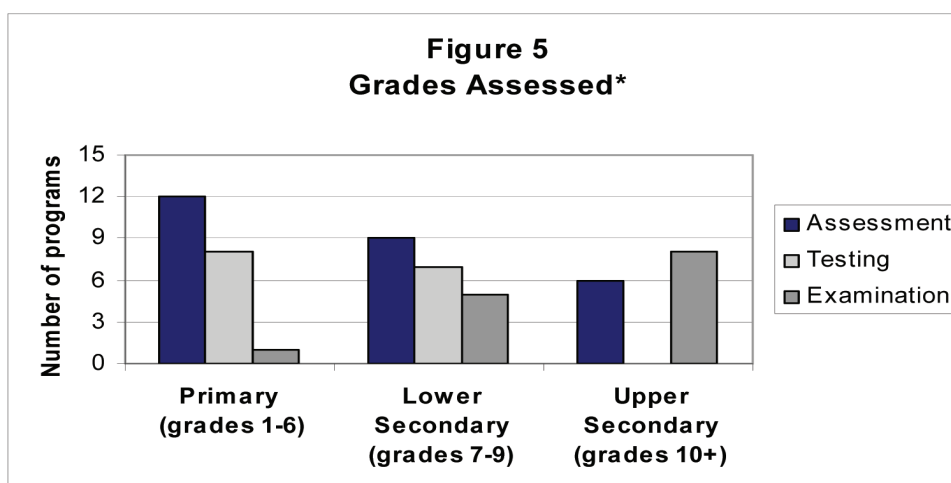
Note: Examination programs typically cover subjects across the lower and/or upper secondary curriculum. Almost all programs cover the two core subjects (i.e., national language and mathematics), and many also cover additional academic subjects such as science, social studies, and foreign languages. However, because respondents did not always specify the complete range of subjects, data could not be presented comparably to data on assessment and testing programs and thus are not included in the chart.

*Does not include programs still under development or subjects in the planning stages

**Includes subjects listed as reading, writing, mother tongue, or an official national language

***Includes subjects listed as social science, history, civics, or geography

****Includes physical education, music, home and consumer studies, and study skills



*Does not include programs still under development or subjects in the planning stages

New developmental areas, item banks, and subnational programs

In addition to collecting data on countries' existing national-level assessment, testing, and examination programs, the survey also asked coun-

tries to provide information on several other topics: developmental areas, item banks, and subnational programs.

About half of the countries that responded to the survey reported new programs or domains still in the developmental stages. Besides Edu-

cational Standards (*Bildungsstandards*) in **Austria**, the **Czech Republic's** Upper Secondary School Leaving Examination (*Maturita*), and **Denmark's** formative evaluation that were mentioned earlier, several other countries (**Finland**, **Luxembourg**, **Mexico**, and **Switzerland**) also are developing new programs. Switzerland, for example, is conducting a research project to develop performance standards using pilot tests in four different subjects. Other countries, although not developing completely new programs, are modifying current programs or developing new domains within existing programs. One example is the **United States**, which is planning to introduce Spanish and economics, among other subjects, in NAEP. Also, the **Netherlands** is redesigning its Dutch cohort studies in primary and secondary education.

Another important assessment-related activity that occurs in countries is the creation of databases of example test items for use by teachers and/or students – these are referred to as “item banks.” Eight countries told us about their item banks, about half of which were banks with items relating to existing national programs,

such as the case in **Canada**, where the items are released items from the School Achievement Indicators Program (SAIP). Subjects covered by item banks vary across countries, and several databases cover multiple subjects. **Korea's** Teaching & Learning Center (TLC) Evaluation Items databank, for example, consists of items for 10 different subjects, including music and home economics.

In addition to assessment-related activities at the national level, seven countries reported programs at the subnational level to measure and to monitor student achievement. In many cases, these are countries with federal systems or a high level of decentralization to subnational governance structures. **Australia**, **Canada**, and the **United States** indicated that all or nearly all of their states/territories/provinces have assessment programs in place. One canton (St. Gallen) in **Switzerland** also is currently implementing a program, as are several states in **Mexico**. In the **Netherlands**, there are a large number of programs at the level of municipalities and schools.

***Interested in knowing more about these programs?
Check out these websites for more information.***

Country	Program	Website
Australia	National Assessment Programme (NAP)	http://www.mceetya.edu.au/taskfrce/task224.htm
Austria	Educational standards (<i>Bildungsstandards</i>)	www.bmbwk.gv.at/medienpool/11369/pa_bildungsstandards.pdf www.bmbwk.gv.at/medienpool/12093/bildungsstandards_folder.pdf www.bmbwk.gv.at/Schulen/unterricht/ba/bildungsstandards.xml www.gemeinsamlernen.at/index2.asp www.dieneueschule.gv.at www.klassezukunft.at
	Screening test to assess basic literacy (reading ability) (<i>Salzburger Lesescreening [SLS]</i>)	www.bmbwk.gv.at www.klassezukunft.at www.lesefit.at
Canada	School Achievement Indicators Program (SAIP)	http://www.cmec.ca/saip/indexe.stm
Czech Republic	Upper Secondary School Leaving Examination (<i>Maturita</i>)	www.ceremat.cz
Denmark	Formative Evaluation	www.uvm.dk
	Leaving examinations after grade 9 (<i>Folkeskolens afsluttende prøver</i>)	www.uvm.dk
Finland	National Matriculation Program	www.minedu.fi/yo-tutkinto
Iceland	National Testing in 4th and 7th Grade	www.namsmat.is
	National Testing in 10th Grade	www.namsmat.is
	Samræmd stúdentspróf [National upper secondary school examinations]	www.namsmat.is
Ireland	National Assessment Programme (primary level)	www.erc.ie
	State Certificate Examinations	www.examinations.ie/
Korea	National Assessment of Educational Achievement (NAEA)	www.kice.re.kr
	The Grade 3 National Diagnostic Assessment of Basic Competency	www.kice.re.kr
Luxembourg	Action Protocol for School Quality (<i>Protocole d'Action Qualité Scolaire [PAQS]</i>)	http://www.script.lu/activinno/projet_descriptif_paqs.phtml

Websites (continued)

Country	Program	Website
Mexico	Educational quality and achievement assessments (<i>Exámenes de la calidad y el logro educativos</i> [EXCALE])	www.inee.edu.mx
	Diagnosis tool for admission to lower secondary schools (Instrumento de Diagnóstico para Alumnos de Nuevo Ingreso a la Secundaria [IDANIS])	www.snee.sep.gob.mx
Netherlands	CITO-eindexamentoets	http://www.citogroep.nl/
	Central National Examinations	www.cevo.nl
Slovak Republic	Monitor 9	www.statpedu.sk/certifikacnemermania/Monitor9
	School leaving examination (external part) (<i>Maturita</i>)	www.statpedu.sk/certifikacnemermania/maturita
Sweden	National Evaluation-03	www.skolverket.se
	National Testing program	www.skolverket.se
	Diagnostic materials	www.skolverket.se
Turkey	Assessment of Student Achievement Program (<i>Öğrenci Başarılarını Belirleme Sınavı</i> [ÖBBS])	www.earged.meb.gov.tr
United Kingdom	Key Stage Tests	http://www.naa.org.uk/tests
	General Certificate of Secondary Education (GCSE)	QCA: http://www.qca.org.uk/609.html Boards:
	General Certificate of Education (GCE) A level	AQA: http://www.aqa.org.uk/ OCR: http://www.ocr.org.uk Edexcel: http://www.edexcel.org.uk/home/ WJEC: http://www.wjec.co.uk CCEA: http://www.ccea.org.uk
United States	National Assessment of Educational Progress (NAEP)	http://nces.ed.gov/nationsreportcard/

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